

### III. NEW SPECIES AND SUBSPECIES OF AFRICAN BIRDS.

BY RUDYERD BOULTON.

Preliminary studies of the four collections of African birds, which I have made, reveal several forms which are apparently undescribed, and it seems desirable to publish diagnoses of these in advance of the final reports upon the expeditions. These collections are being conjointly studied, as there are geographic races in one collection not represented in the others, and a more careful analysis is obtainable through an examination of the entire series.

The four collections dealt with in this paper were made by: 1, The Vernay Angola Expedition of the American Museum of Natural History, which was in the field from April until August, 1925, and collected about twelve hundred specimens in central and southern Angola; 2, The Straus African Expedition of the American Museum of Natural History, which secured nine hundred specimens in southern Tanganyika Territory and eastern Nyasaland from May until August, 1929; 3, The South African Expedition of the Carnegie Museum, which made a collection of six hundred specimens in western and southern Nyasaland and Southern Rhodesia from September, 1929, until February, 1930; 4, The Pulitzer Angola Expedition of the Carnegie Museum, which worked in central and southern Angola from October, 1930, until April, 1931, bringing back a collection of about thirteen hundred specimens.

I am indebted to the authorities of the American Museum of Natural History for permission to report on the birds of the Vernay and Straus Expeditions, and for their courtesy in extending to me all possible facilities. To Dr. James P. Chapin I am especially grateful for his advice and criticism. My thanks are due Dr. Lowe and Mr. Sclater of the British Museum for allowing me to examine certain specimens in the collections of that institution. To Dr. Friedmann of the United States National Museum, to Mr. Bangs of the Museum of Comparative Zoölogy, and to Mr. Bowen of the Philadelphia Academy of Natural Sciences I am grateful for the loan of specimens used in the studies here reported.



In the following descriptions the names of colors in quotations are those of Ridgway's "Color Standards and Nomenclature," 1912. All measurements are in millimeters. The wing is measured flat and straightened; that is, in a straight line from the bend of the shoulder to the tip of the longest quill. The tail is measured from the insertion of the middle rectrices to the tip of the longest feather. The measurement of the bill is that of the exposed culmen, in a straight line from its extremity to the point where the feathers of the forehead hide the culmen.

1. *Gymnobucco calvus vernayi*, subsp. nov.

*Type*.—American Museum of Natural History, No. 259419; adult male, gonads much enlarged; Mombolo, 6,000 ft., District of Cuanza Sul, Angola; February 13, 1925; Rudyerd Boulton, coll., Vernay Angola Expedition. Wing, 94; tail, 53; culmen, 20; tarsus, 21.

*Subspecific characters*.—Smaller than *G. c. major* Neumann. Differs from both *G. c. calvus* (Lafresnaye) and *G. c. major* in having the throat grayish white instead of dark grayish brown; the brown ground-color of the plumage more grayish brown and more heavily streaked above and below with grayish white; bristle-tufts grayish white instead of yellowish buff. Culmen shorter than in either *G. c. calvus* or *G. c. major*.

*Description*.—Nasal,<sup>1</sup> malar and mental bristles grayish white (slightly discolored in the type); fore part of the crown bare, skin black, unfeathered except for sparse, fine hair-like, black bristles; ground-color of the feathers of the upper parts dark brown (a little grayer than "mummy brown"); feathers of the hind crown with pale grayish brown centers, most distinct toward their bases; feathers of the back with white shafts and broad grayish white center streaks, distinct but poorly defined; rump and upper tail-coverts unstreaked, and washed with grayish brown; throat dirty grayish white; remainder of the under parts "buffy brown"; feathers of the breast and belly with white shafts and pale grayish white centers; crissum and under tail-coverts "buffy brown," washed with grayish and yellowish; wing-coverts "clove-brown," washed and shaded at the extremities of the feathers with "buffy brown"; primaries and outer secondaries dark "clove-brown" edged externally with black; inner secondaries olive-

<sup>1</sup>Reichenow, *Vög. Afrika's*, II, 1902, p. 137, and Bates, *Handbook Birds of W. Africa*, 1930, p. 276, incorrectly state that there are no tufts of bristles behind the nostrils.



brown, tectrices edged internally with pale grayish brown on the basal portion of the inner web; lining of the wings silvery brown; under wing-coverts grayish brown; rectrices "clove-brown," slightly paler on the inner web.

*Remarks.*—*G. c. calvus* is distinguished from the other races by the darker and richer tone of the brown of the under parts and by an almost total lack of shaft-streaks on the feathers of the breast. *G. c. major* is intermediate in these two respects between *calvus* and *vernayi*, but the characters are constant and the race is well marked. *G. c. vernayi* is more distinct than either of the other races.

The five birds collected by Dr. Chapin on the Lower Congo are intermediate between typical *major* and *vernayi*. They are nearer to birds from Angola than to those from Cameroon, but are distinguished from the former by the narrower streaking of the lower parts and by the darker gray of the throat, and possibly merit subspecific recognition. In the series from Angola there are several subadult specimens, which are characterized by the narrow sulphur-yellow edges of the feathers of the back and under parts, and by the persistence of the curious spined tubercle on the proximal inferior portion of the tarsus. It would appear that this tubercle disappears through the agency of wear and occasional scaling, rather than by complete shedding at one time, as in the case of the "egg-tooth" on the bills of many nestling birds.

Comparative measurements of the three races of *calvus* are as follows:

*G. c. calvus.* One male: wing, 89 (worn); tail, 48; culmen, 22; tarsus, 23. Two females: wing, 90 (90); tail, 48-50 (49); culmen, 20-20.5 (20.2); tarsus, 22 (22). Two specimens (sex undetermined): wing, 87-92 (89.5); tail, 46-50 (48); culmen, 18.7-21 (19.8); tarsus, 20-23.5 (21.8).

*G. c. major.* Eight males: wing, 95-106 (99.2); tail, 49-60 (53.8); culmen, 20.5-22 (21.2); tarsus, 22.5-25 (24). Four females: wing, 95-100 (98.1); tail, 51-57 (54); culmen, 21-22 (21.5); tarsus, 23.5-24.5 (24).

*G. c. vernayi.*<sup>2</sup> Eight males: wing, 90-94 (92.5); tail, 51-59 (54); culmen, 19-20 (19.8); tarsus, 21-24 (22.8). Nine females: wing, 91-97.5 (94.5); tail, 52-58 (54.9); culmen, 19-20 (19.6); tarsus, 23-24 (23.5).

*Specimens examined.*—*G. c. calvus.* One from Sierra Leone (Am. Mus. Nat. Hist.); two from Bangah and one from Du River, Liberia (Mus. Comp. Zoöl.); one from "Taveta"—Ussher Coll. (U. S. Nat. Mus.).

<sup>2</sup>The five birds from the Lower Congo are not included. They are slightly smaller than typical *vernayi*.



*G. c. major*. Two from Efulen and eleven from Minikalli, Cameroon (Carnegie Mus.).

*G. c. vernayi*. Fourteen from Moco Mt., 6,400-6,500 ft., Angola (Carnegie Mus.); six from Mombolo, 6,000 ft., Angola; two from Thysville, and three from Ganda Sundi, Belgian Congo (Am. Mus. Nat. Hist.).

2. ***Viridibucco coryphæa angolensis***, subsp. nov.

*Type*.—American Museum of Natural History, No. 264721; adult male; Mombolo, 6,000 ft., District of Cuanza Sul, Angola; June 20, 1927; H. and C. Chapman, coll. Wing, 56; tail, 28; culmen, 9; tarsus, 14.

*Subspecific characters*.—Wing slightly longer than in *V. c. coryphæa* (Reichenow); bill slightly shorter. Gray of the under parts much paler and less olive; yellow of the upper parts more greenish, instead of "lemon chrome." Differs from *V. c. jacksoni* W. Slater by having a considerably longer wing and bill, and in that the gray of the under parts and yellow of the upper parts are paler.

*Description*.—Forehead, lores, superciliary stripe, sides of the crown, scapulars, back, and upper tail-coverts glossy blue-black; the feathers of the center of the crown, nape, and back mottled with "picric yellow"; auriculars black; a white line extends from the nostrils under the eye and ear-coverts to the side of the neck; rump "pale lemon-yellow"; under parts "pale smoke-gray" lightly washed with yellowish green on the breast and flanks; under tail-coverts the same; wing-coverts glossy black, the middle series broadly, and the greater series narrowly, edged with yellow; primaries and secondaries fuscous, the secondaries edged externally with yellow; all the wing-feathers internally edged at their bases with white; under wing-coverts white; tail glossy black, the feathers narrowly edged on the base of the outer web with yellowish white.

*Remarks*.—This race is most closely related to *V. c. jacksoni* from Mt. Ruwenzori and the Kivu Volcanoes, but is readily distinguished by its paler yellow and more grayish plumage, as well as by its larger size. *V. c. coryphæa* with its "lemon-chrome" marking is very distinct, and is intermediate in length of wing between *jacksoni* and *angolensis*.

In one specimen from Mombolo, which from the color of its bill and structure of the feathers is obviously immature, the yellow of the crown is very pale and indefinitely demarked from the black of the upper parts, and the under parts are more richly suffused with greenish than in two adults.



Unfortunately the four original specimens of this race collected by the Vernay Angola Expedition were lost in transit, and only their measurements were preserved in manuscript. Subsequently three others were obtained, one of which is made the type.

Comparative measurements of adults of the three races follow:

*V. c. coryphæa*. Five males: wing, 53-55 (54.1); tail, 26-28 (27); culmen, 9.4-10.5 (9.7); tarsus, 14.3-15 (14.8). Two females: wing, 53-53.5 (53.2); tail, 25.5-27.5 (26.5); culmen, 9.4-9.5 (9.4); tarsus, 15 (15).

*V. c. jacksoni*. Six males: wing, 50-53 (51); tail, 25.5-27 (26.7); culmen, 8-9 (8.5); tarsus, 13.5-14.5 (14.1). Three females: wing, 51-54 (52.4); tail, 25-26 (25.5); culmen, 8-8.5 (8.2); tarsus, 14-14.5 (14.2).

*V. c. angolensis*. Four males: wing, 55-57 (56); tail, 26.5-28 (27.3); culmen, 9-9.6 (9.4); tarsus, 14-14.5 (14.2). Two females: wing, 55-56 (55.5); tail, 25-27 (26); culmen, 9 (9); tarsus, 14-14.5 (14.2).

*Specimens examined*.—*V. c. coryphæa*. Two from Ninong, Manenguba Mts.; one from Bambulue Lake, 6,000 ft., near Bamenda; one from Kumbo, 6,000 ft.; one from Bamenda, 5,500 ft.; one from between Kumbo and Bamenda, 4,000 ft.; one from north of Chang, 5,000 ft. (Brit. Mus. Nat. Hist.).

*V. c. jacksoni*. One from Kanyango, Uganda, (the type) (Brit. Mus. Nat. Hist.). Two from northwestern slope of Mt. Mikeno, 7,900 ft.; four from near Lubero, 7,500-7,600 ft.; two from Kalongi, 6,900-7,100 ft., western slopes of Mt. Ruwenzori; one from Mt. Musandama, 7,900 ft., northeastern end of Mt. Ruwenzori, eastern Congo (Am. Mus. Nat. Hist.).

*V. c. angolensis*. Seven from Mombolo, 6,000 ft., Angola (Am. Mus. Nat. Hist.).

#### ONYCHORHINUS, subgen. nov.

*Type: Macrosphenus (Onychorhinus) pulitzeri*, sp. nov. (*vide infra*).

*Diagnosis*.—Bill shorter than head, stouter than in other species of *Macrosphenus* Cassin; exposed culmen gently decurved, more strongly so terminally; inferior outline of mandible uniformly convex, more so than in *Macrosphenus* or *Suaheliornis* Neumann; depth of bill at gonys equal to its width, not less than its width as in *Macrosphenus* and *Suaheliornis*. Wing short and greatly rounded. Tail about four-fifths the length of the wing. Legs, feet, and claws comparatively strong and robust.



*Remarks.*—*M. pulitzeri* is interesting because it is in many ways intermediate between the genera *Macrosphenus* and *Suaheliornis*. I accordingly propose to unite them, retaining the latter as a subgenus, in order to indicate more accurately the relationship. The arrangement would provide for three subgenera in the genus *Macrosphenus*: the first, *Macrosphenus*, including *flavicans* Cassin and *kempi* (Sharpe);<sup>3</sup> the second, *Onychorhinus*, including *pulitzeri*, sp. nov., and *concolor* (Hartlaub); the third, *Suaheliornis*, including *kretschmeri* (Reichenow and Neumann) and *albigula* (Grote).<sup>3</sup>

A subgeneric division not only correlates structural characters within the genus, but also indicates geographical distribution. *Macrosphenus* is West African; *Suaheliornis*, East African; and *Onychorhinus* is West African and Angolan. If I may dare to suggest a phylogenetic tree, the cut here given seems best to illustrate the relationships of these six species.

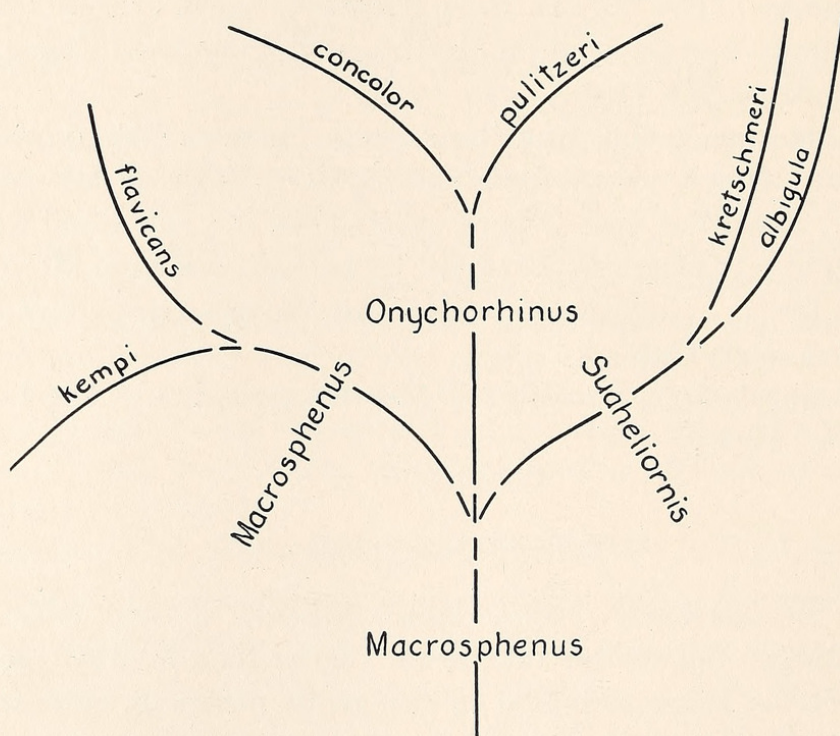
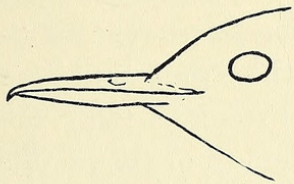


Fig. 1. Phylogenetic tree of the genus *Macrosphenus*

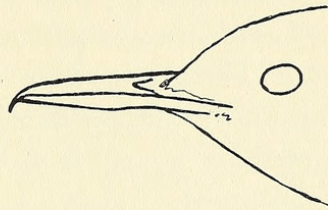
<sup>3</sup>As I have examined neither of these species I cannot be sure of their relationships. However, Mr. Bannerman's review of *Macrosphenus* (*Ibis*, 1921, p. 121) gives such a clear picture of *kempi*, and *albigula* appears to be so near *kretschmeri* that the above allocation of these species would seem justifiable.



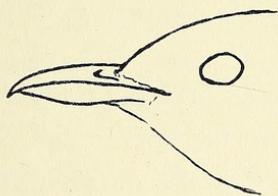
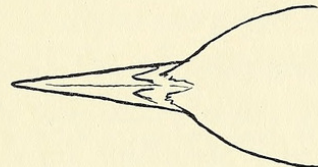
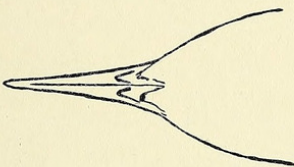
The figures of the bills shown below demonstrate more adequately than long descriptions their differences and similarities.



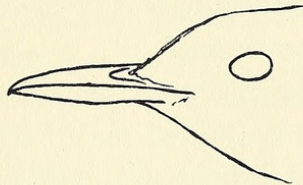
M. flavicans



M. kretschmeri



M concolor



M. pulitzeri

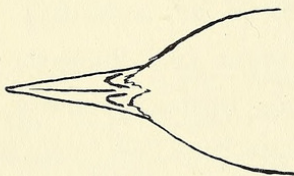
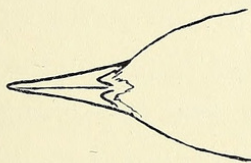


Fig. 2. Variation of bills in the Genus *Macrosphenus*

The wing formulæ of the four species examined show a considerable degree of variation. In every case the wing is greatly rounded and the amount of rounding is probably correlated with the habits and local habitat of the individual species. The first primary is considered to be the one at the carpal joint; the tenth is the outermost. In *flavicans* the formula is 5, 4, 6, 7, 8, 9, 10; in *concolor*, 6, 5, 7, 8, 9, 10; in *pulitzeri* and *kretschmeri*, 4, 5, 6, 7, 8, 9, 10.

The proportion of length of wing to length of tail is also variable.



In *kretschmeri* they are almost equal, and in *flavicans* the tail is proportionately shorter. The following percentages are calculated by dividing the length of wing by the length of tail: *M. kretschmeri*, 95 percent; *M. pulitzeri*, 81 percent; *M. concolor*, 70 percent; *M. flavicans*, 69 percent. The graduation of the tail-feathers puts *kretschmeri* again at one extreme, while *pulitzeri* has the least rounded tail. The length of the outermost rectrix is divided by the length of the middle pair of rectrices, giving the following percentages: *M. kretschmeri*, 77 percent; *M. flavicans*, 82 percent; *M. concolor*, 83 percent; *M. pulitzeri*, 83 percent.

Subgenera are in my opinion of value only when they show to advantage the relationships of the species within a genus. The six species under discussion form such a heterogeneous, yet at the same time obviously related group, that it is illogical to accord to any one form generic rank. Uniting them simplifies the taxonomy, but disregards their biological significance. Splitting them into monotypic genera could serve no useful purpose. Accordingly, a subgeneric division seems desirable, even though it adds to an ever-growing multitude of names.

The following notes on specimens of the genus *Macrosphenus* that have been examined may be of interest. Of two specimens of *M. f. flavicans* examined, a female collected by Sr. Correia on Fernando Po, is much larger than a male collected by Mr. Bates at Bitye. The latter is, however, subadult. Compared with the series of *M. f. hypochondriacus* (Reichenow) collected by Dr. Chapin in the Upper Congo, these birds are more greenish yellow and less orange. An immature specimen of *hypochondriacus* from Avakubi is in brownish juvenal plumage. The throat is irregularly grayish and greenish brown, and the sides of the breast are distinctly golden brown. Two specimens of *M. concolor* collected by Sr. Correia on Fernando Po are distinctly larger than birds from either Cameroon or the Upper Congo, and they are more yellowish on the breast, grayer on the flanks and belly, and paler grayish green on the upper parts. They may represent a distinct race.

### 3. *Macrosphenus pulitzeri*, sp. nov.

*Type*.—Carnegie Museum, No. 108951; adult female, egg in oviduct; Chingoroi, 2,200 ft., District of Benguela, Angola; December 1, 1930;



R. and L. Boulton, coll., Pulitzer Angola Expedition. "Iris, putty-color; mandible, horn-color; maxilla, flesh-color; legs and toes, flesh-color; nails, horn-color." Wing, 63; tail, 51; culmen, 16; tarsus, 25.

*Description*.—Entire upper part of the head, ear-coverts and nape between "light brownish olive" and "citrine drab"; lores dusky; back, scapulars, and upper tail-coverts between "deep olive" and "brownish olive"; chin and throat "olive-buff," the margins of the feathers darker than the centers, which have a grayish tinge; breast and belly "yellowish olive-buff," the terminal portions of the feathers faintly "reed-yellow"; flanks "ecru-olive"; under tail-coverts "olive-ocher"; wings and tail "brownish olive," feathers margined externally with greenish olive; basal inner margins of the wing-feathers grayish white; under wing-coverts dirty yellowish white.

Comparative measurements of specimens examined are as follows:

*M. k. kretschmeri*. One male: wing, 66; tail, 61; culmen, 17; tarsus, 23. One female: wing, 70; tail, 70; culmen, 16; tarsus, 23.5.

*M. pulitzeri*. One female: wing, 63; tail, 51; culmen, 16; tarsus, 25 (type).

*M. f. flavicans*. One male: wing, 56; tail, 45; culmen, 15.5; tarsus, 22. One female: wing, 64; tail, 44; culmen, 16; tarsus, 22.5.

*M. f. hypochondriacus*. Six males: wing, 58-64 (61); tail, 41-47 (44); culmen, 15-16.5 (15.9); tarsus, 21-21.5 (21.3). Four females: wing, 53-58 (56); tail, 35-39 (37); culmen, 15-16 (15.5); tarsus, 19.5-21 (20.3).

*M. concolor*. Six males: wing, 56-63 (58.8); tail, 38-44 (40.7); culmen, 13-16 (13.9); tarsus, 20.5-22 (21.2). Four females: wing, 56-60 (57.5); tail, 38-43.5 (40.1); culmen, 13-13.5 (13.4); tarsus, 19-21 (19.9).

*Specimens examined*.—*M. k. kretschmeri*. Two from Bungu, Usambara, Tanganyika Terr. (Am. Mus. Nat. Hist.).

*M. pulitzeri*. One from Chingoroi, Benguela, Angola (Carnegie Mus.).

*M. f. flavicans*. One from Bitye, Cameroon, and one from Fernando Po (Am. Mus. Nat. Hist.).

*M. f. hypochondriacus*. Five from Avakubi, one from Medje, two from Rungu, two from Niangara, one from Ngayu, and one from Manamama, between Bafwabaka and Ngayu, northeastern Belgian Congo (Am. Mus. Nat. Hist.).

*M. concolor*: Three from Avakubi, four from Medje, one from Ngayu, and one from Irumu, Belgian Congo; two from Fernando Po; one from Assobam and one from Yaunde, Cameroon (Am. Mus. Nat. Hist.). One from Lolodorf, Cameroon (Carnegie Mus.).



4. *Apalis cinerea grandis*, subsp. nov.

*Type*.—Carnegie Museum, No. 109479; adult male, gonads somewhat enlarged; Moco Mt., 6,500 ft., District of Benguela, Angola; February 27, 1931; R. and L. Boulton, coll., Pulitzer Angola Expedition. Wing, 62; tail, 73; culmen, 11; tarsus, 21.5.

*Subspecific characters*.—Larger than *A. c. cinerea* (Sharpe) or *A. c. sclateri* (Alexander). Crown ashy gray instead of brown; flanks grayer.

*Description*.—Forehead "pale mouse-gray," top of head and hind crown "mouse-gray"; lores and auriculars "deep mouse-gray"; back, scapulars, and upper tail-coverts "deep neutral gray"; under parts white, washed with buffy, brightest on the upper breast and flanks, all of the feathers with gray bases, which are most prominently revealed on the sides of the belly; flanks "deep gull-gray"; wing-coverts fuscous edged with "deep neutral gray"; alula, primaries, and secondaries fuscous, the latter edged externally with lighter brown; all the wing-feathers internally edged with silvery gray; under wing-coverts white; tail considerably graduated, the outermost feathers thirty-two millimeters shorter than the middle pair; two central pairs of rectrices uniform fuscous; the third pair with a triangular white spot at the tip, the apex of which extends eleven millimeters along the shaft; three outer pairs of rectrices white.

*Remarks*.—*Apalis cinerea minor* Granvik (= *granviki* Grote) seems almost certainly to be a synonym of typical *cinerea*. There is a great amount of individual variation in size, and the series in the American Museum demonstrates that this variation cannot be correlated geographically. The range of variation in birds taken in the vicinity of Nairobi practically includes the range in size of Elgon birds. Although I have seen no specimens of supposed *sclateri* from West Africa, I am inclined to follow Count Gyldenstolpe<sup>4</sup> in uniting all East and West African specimens under the name *cinerea*. Following are the comparative measurements of the adult specimens examined:

*A. c. cinerea*. Eight males: wing, 49-56 (53.5); tail, 49-60 (56); culmen, 10-11 (10.5); tarsus, 19-20 (19.6). Six females: wing, 48-58 (52.5); tail, 46-51 (49.8); culmen, 10-11 (10.3); tarsus, 18-20.5 (19.3).

*A. c. grandis*. Five males: wing, 61-64 (62.4); tail, 69-74 (71.4); culmen, 10.8-11 (10.9); tarsus, 21-22 (21.4). One female: wing, 58; tail, 58; culmen, 10.5; tarsus, 22.

*Specimens examined*.—*A. c. cinerea*. Three from Marsabit, six from Ngong Forest, one from Mara River, five from Molo, one from Kijabe,

<sup>4</sup>1926, Arkiv. för Zoologi, Bd. 19A, N:o. 1, p. 48.



and one from Mt. Kenya, Kenya Colony; one from Djugu, eastern Ituri District, Belgian Congo (Am. Mus. Nat. Hist.).

*A. c. grandis*. Six from Moco Mt., 6,300-6,500 ft., Angola (Carnegie Mus.).

#### 5. *Apalis bamendæ strausæ*, subsp. nov.

*Type*.—American Museum of Natural History, No. R. B. 2799; adult male, gonads not enlarged; Mt. Rungwe, 5,650 ft., Tanganyika Territory; June 11, 1929; R. and L. Boulton, coll., Straus African Expedition. Wing, 50; tail, 49; culmen, 9; tarsus, 18.

*Subspecific characters*.—Similar to *A. b. bamendæ* in that the face and ear-coverts are chestnut, rather than the same color as the back as in *A. porphyrolæma*. The chestnut on the head of the new race is, however, much darker than it is in *A. b. bamendæ*. It differs from *A. b. chapini* in having the chin, throat, and malar region tawny instead of white.

*Description*.—Lores, superciliary stripe, auriculars and forehead dark "chestnut," extending from the latter as a wash over the grayish brown of the crown; back, scapulars, and wing-coverts "deep neutral gray," overlaid with a very slight wash of fuscous; upper tail-coverts more strongly washed with brownish; throat "tawny"; feathers of the upper chest "tawny" with gray bases; sides of breast and flanks "pale mouse-gray," center of belly paler and with a buffy wash; under tail-coverts gray, strongly washed with "tawny"; tibiæ dark "chestnut"; primaries and secondaries blackish brown, the inner secondaries edged externally with "olive-brown"; tectrices internally edged with pale gray; "axillars" whitish; under wing-coverts white, tipped with "tawny"; rectrices, twelve in number, dark grayish brown, each feather with an indistinct buffy tip.

*Remarks*.—In place of the arrangement of certain species and subspecies of *Apalis* given in Mr. Sclater's "Systema Avium Ethiopiarum," I propose the following:

<i>Apalis</i>	<i>porphyrolæma</i>	<i>porphyrolæma</i>	Reichenow and Neumann
"	"	<i>affinis</i>	Ogilvie-Grant
"	"	<i>vulcanorum</i>	Gyldenstolpe
"	<i>bamendæ</i>	<i>bamendæ</i>	Bannerman
"	"	<i>chapini</i>	Friedmann
"	"	<i>strausæ</i>	sp. nov.
"	<i>goslingi</i>	<i>goslingi</i>	Alexander
"	"	<i>hardyi</i>	Bannerman

I am grateful to Dr. Chapin for calling my attention to the fact that *goslingi* is obviously not conspecific with *porphyrolæma*. *Goslingi* and



*hardyi* are birds of the lowland forests; all of the other races are found only in forest at high latitudes. In the races of *porphyrolæma* the lores, forehead, auriculars, and subocular region are slate-gray, the same color as the back. The races of *bamendæ* have these same areas tawny rufous, the same color as the throat. The distribution of *Apalis bamendæ* is unusual, including as it does the Cameroon and Tanganyika highlands, while *porphyrolæma* occupies the Kenya and eastern Congo highlands.

Comparative measurements are as follows:

*A. p. porphyrolæma*. Two males: wing, 49-55 (42); tail, 49-63.5 (66.2); culmen, 9-9.4 (9.2); tarsus, 18-19 (18.5).

*A. p. affinis*. Three males: wing, 51-54 (52.3); tail, 56.5-61.5 (59); culmen, 8.9-9.5 (9.1); tarsus, 19.3-20 (19.6). Two females: wing, 50 (50); tail, 45.5-50 (47.7); culmen, 9-9.2 (9.1); tarsus, 18-19.5 (18.7).

*A. b. bamendæ*. One female: wing, 50; tail, 38.5; culmen, 9.5; tarsus, 18.4.

*A. b. chapini*. Three females: wing, 47.5-50.5 (49); tail, 45-52 (48.6); culmen, 9.5-10 (9.8); tarsus, 17-18.5 (17.8).

*A. b. strausæ*. Two males: wing, 49-50 (49.5); tail, 49-51 (50); culmen, 9 (9); tarsus, 18 (18).

*Specimens examined*.—*A. p. porphyrolæma*. One from Nandi, and one from Molo, Kenya (Am. Mus. Nat. Hist.).

*A. p. affinis*. One from Lubero, one from Kalongi, and three from western slopes of Mt. Ruwenzori, eastern Congo (Am. Mus. Nat. Hist.).

*A. b. bamendæ*. One from Dschang, Cameroon (Am. Mus. Nat. Hist.).

*A. b. chapini*. Two from Kigogo, Uzungwe, and one from Vituru, Uluguru, Tanganyika Territory (Mus. Comp. Zoöl.).

*A. b. strausæ*. Two from Mt. Rungwe, Tanganyika Territory (Am. Mus. Nat. Hist.).

*A. g. goslingi*. The series in the American Museum of Natural History, from the Ituri River, near Penge and Avakubi, and from the Lindi River near Bengamisa, Belgian Congo.

## 6. *Seicercus lauræ*, sp. nov.

*Type*.—Carnegie Museum, No. 109478; adult male, gonads not enlarged; Moco Mt., 6,600 ft., District of Benguela, Angola; February 27, 1931; R. and L. Boulton, coll., Pulitzer Angola Expedition. Wing, 62; tail, 43; culmen, 9; tarsus, 21.



*Specific characters.*—Differs from other known species in pattern of coloration. Most nearly related to *S. ruficapilla* (Sundeval), but easily distinguished by its larger size and the uniform yellow-green of the upper parts.

*Description.*—Entire upper parts between "yellowish oil-green" and "warbler-green"; superciliary stripe greenish yellow; lores and a narrow streak behind the eye dusky; eye-ring bright yellow, interrupted by the dusky lores and postocular streak; throat, breast, and cheeks bright "lemon-yellow," the latter washed with dusky; lower breast and center of the belly white; flanks pale gray slightly washed with olive-green; tibiae and under tail-coverts "pale lemon-yellow"; wing-coverts, primaries, and outer secondaries dark fuscous; inner secondaries and rectrices more olive-brown, each feather broadly margined externally with yellowish green; inner margins of the primaries and secondaries whitish; "axillars" and feathers of the edge of the wing bright yellow; under wing-coverts white, tipped with "lemon-yellow."

*Remarks.*—This species, the first of its genus to be found in southwestern Africa, is apparently confined to the mountain forest of the Benguela highlands. Its bill is not so sharp and attenuated as that of *S. umbrovirens* (Rüppell), and is intermediate in shape between that of *S. ruficapilla* and *S. budongoënsis* (Seth-Smith).

A female also collected on Moco Mountain does not differ in coloration from the type. Its measurements are: wing, 58; tail, 39; culmen, 8.5; tarsus, 19.

#### 7. *Laniarius nyasæ*, sp. nov.

*Type.*—Carnegie Museum, No. 107130; female, ovaries not enlarged, skull almost completely ossified; twenty miles east of Mzimba, 6,200 ft., Nyasaland; October 2, 1929; R. and L. Boulton, coll., South African Expedition. Wing, 82; tail, 72; culmen, 19; tarsus, 32.

*Specific characters.*—Unlike any known species of *Laniarius*. Upper parts slate-olive; under parts dusky olive-green.

*Description.*—Upper parts slate-olive ("chætura-drab"), the head slightly darker; forehead blackish; ear-coverts and sides of the head more brownish than the back; feathers of the rump indistinctly tipped with dusky olivaceous buff; throat and upper chest dusky olive; breast buffy olive; center of the belly "colonial buff," shaded with dusky olive; flanks and sides of the breast "brownish olive"; crissum and under tail-coverts olive; tibiae "dresden brown"; primaries and secondaries blackish brown, slightly edged with dark gray on their outer webs; rectrices blackish brown; lining of the wings and tail silvery brown; under wing-coverts dusky brown.



*Remarks.*—Unfortunately this specimen is not entirely adult. I feel confident, however, that its characters do not differ in any essential from the adult plumage. Juvenal specimens of *L. funebris* (Hartlaub), *L. fülleborni* (Reichenow), and *L. leucorhynchus* (Hartlaub) have been examined, and they show no resemblance to this bird from the Vipya plateau. The new form is probably most nearly related to *Laniarius fülleborni* of the Mt. Rungwe district.

Note on **Chlorophoneus münzneri** Reichenow.

A male of this beautiful Bush-Shrike, collected on Mt. Rungwe, Tanganyika Territory, by the Straus Expedition, agrees in every detail with Reichenow's original description. For several reasons I am of the opinion that *münzneri* constitutes a distinct species, and is not a race of *Chlorophoneus rubiginosus* (Sundeval). It has no indication of a white eyebrow; the tail is entirely olive-green and yellow with no trace of black; the throat is pure white; the bill is much weaker. While the details of the range of *Chlorophoneus rubiginosus*, to which this form has heretofore been referred, are not yet completely worked out, Mt. Rungwe and Sanyi (type-locality of *münzneri*) are directly between northern Nyasaland and the Uluguru Mts., in Tanganyika, from which localities *C. r. bertrandi* (Shelley) has been recorded. It would be illogical to make such very distinct forms conspecific, when they occupy similar and in some details overlapping territory. A female of *C. münzneri* from the Usambara Mountains is similar to the male above described, except that the blue-gray of the head and nape is duller. It has no trace of white lores or eyebrow. Comparative measurements are as follows:

*C. münzneri*. One male: wing, 92; tail, 94; culmen, 15; tarsus, 25. One female: wing, 89; tail, 84; culmen, 14; tarsus, 24.

*C. r. bertrandi*. Two males: wing, 81-86 (83.5); tail, 79-84 (81.5); culmen, 17-17.5 (17.3); tarsus, 26-26.5 (26.3). Four females: wing, 79-81 (80.2); tail, 76-78 (76.8); culmen, 16-17.5 (16.6); tarsus, 25-26.5 (25.4).

*Specimens examined.*—*C. münzneri*. One from Mt. Rungwe (Am. Mus. Nat. Hist.). One from Usambara (Acad. Nat. Sci. Phila.).

*C. r. bertrandi*. Three from Mt. Selinda (Carnegie Mus.). One from Mt. Mlanje (Am. Mus. Nat. Hist.). Two from Mt. Selinda (Mus. Comp. Zool.).

Carnegie Museum, November 10, 1931.





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